

## ABSTRACT OF DISCLOSURE

A method and system is provided to induce mild hypothermia in a patient through controlled heating of the preoptic anterior hypothalamus (POAH) in conjunction with cooling of patient's body. The system employs an ultrasound transducer that may be positioned extracorporeally to a patient skull for emitting ultrasound energy to the POAH. The ultrasound energy heats the POAH to inhibit thermoregulatory responses of the body such that a cooling means may more effectively cool bodily tissue in order to reduce a patient's core body temperature. Feedback sensors may be positioned at various locations on the patient in order to monitor the patient's core body temperature. A control apparatus included with the system controls the amount of heat the POAH receives and the amount of cooling the body receives based on the feedback signals from the sensors.